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[56] **References Cited**

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*Primary Examiner*—Bernarr E. Gregory  
*Attorney, Agent, or Firm*—C. A. Phillips

[57] **ABSTRACT**

A time domain communications system wherein a broadband of time-spaced signals, essentially monocy-  
cle-like signals, are derived from applying stepped-in-  
amplitude signals to a broadband antenna, in this case, a  
reverse bicone antenna. When received, the thus trans-  
mitted signals are multiplied by a D.C. replica of each  
transmitted signal, and thereafter, they are, succes-  
sively, short time and long time integrated to achieve  
detection.

**34 Claims, 8 Drawing Sheets**

[58] **Field of Search** ..... 342/21, 22, 27, 28,  
342/118, 120, 127, 132, 134, 145, 201; 375/1,  
35; 380/34

